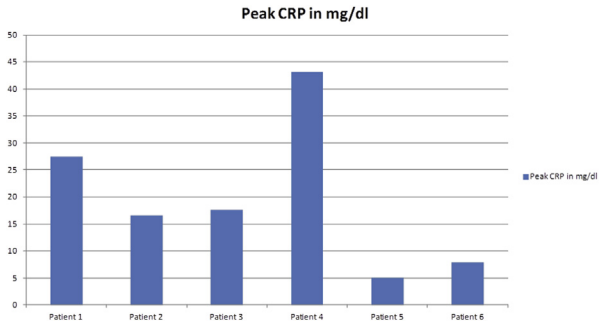

Figure 2.

after a patient has received high-dose chemotherapy followed by ASCT.

Patients undergoing CAR T-cell therapy are prone to CRS which can be fatal. C-reactive protein (CRP) has been identified as a surrogate marker for CRS.

Intervention: Patients with aggressive rel/ref DLBCL receive BEAM conditioning followed by ASCT on day 0 and CAR T-cell infusion on days +2 and +3 per institutional protocol 12-117. CRP levels are monitored daily for trends, and close surveillance for signs/symptoms of CRS is performed. An algorithm to guide management of CRS is included in all our CAR T-cell therapy protocols (Fig. 1).

Findings: To date, six patients have been treated on this protocol. Two of the six patients had CRS and were treated according to the management guideline, and both patients had a peak CRP >20 (Fig. 2). All patients had neutrophil engraftment at the expected time point and remain in remission at a median follow-up of 6 months.

Discussion & Implications: Preliminary findings based on limited data show encouraging results for use of CAR T-cell therapy in this patient population. A correlation was seen in incidence of CRS when CRP was >20. This has been seen in previous studies and may help to better identify patients at risk for developing CRS. The CRS management algorithm serves as a guideline: the immunomodulatory agents (specifically dexamethasone) included in the algorithm run the risk of muting the action of the CAR T-cells. Thus, the risk of implementing this algorithm needs to be weighed against the risk of progression of lymphoid malignancy. In this protocol, a lower threshold for activating the management algorithm is utilized as the risk of death from CRS exceeds that of death due to primary disease. This trial is ongoing, and updated results are forthcoming.

BMT ADMINISTRATORS/QUALITY

518

A. Effect of Computerized Triage Support for Evaluation and Treatment of Febrile Bone Marrow Transplant Patients Who Present to the Emergency Department

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Background: Rapid evaluation and antibiotic therapy for febrile bone marrow transplant (BMT) patients is critical to decrease morbidity and mortality from infection, but identifying these patients in a large medical system can be challenging. This study measures the effect of computerized triage support implemented in an Emergency

Table 1
Comparison of Pre and Post Intervention Times

	Pre			Post			p-value
Time To:	n	Median	IQR	n	Median	IQR	
Vitals	24	4	2-11	39	5	3-9	0.32
Blood Culture	22	38	30-60	33	41	25-66	0.45
Antibiotics	20	114	93-168	34	79	61-135	<0.01
Transfer to Unit	24	211	181-257	39	174	152-320	0.28

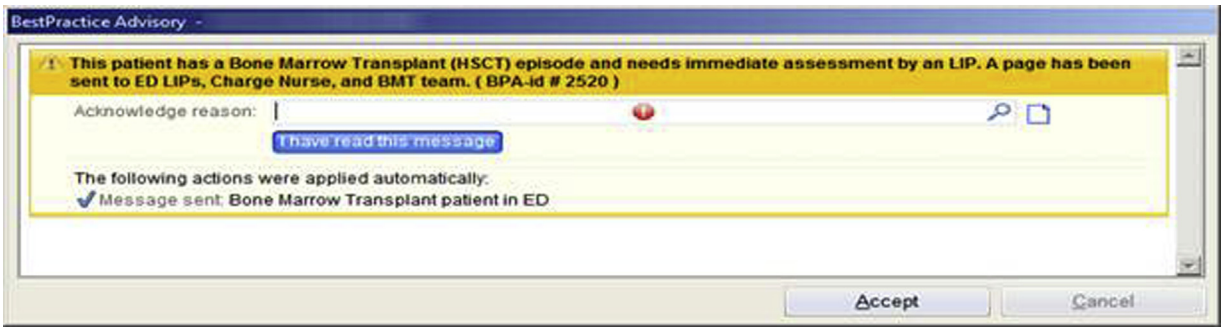

Figure 1. BPA to alert clinicians to BMT history and the need for immediate assessment. The BPA also sends pages to ED LIPs, charge nurse and the BMT team. © 2014 Epic Systems Corporation. Used with permission.

Department (ED) electronic medical record (EMR) on time to antibiotic administration and other time-sensitive measures. We hypothesize that triage support will decrease time to vitals, blood cultures, antibiotics, and unit transfer.

Methods: A before-after interventional study was conducted of all adult (age $\geq$ 18) patients with history of BMT and fever $>$37.1°C admitted from a 60,000-visit university ED with an active BMT program between October 2011 and July 2014. Cohorts were defined by implementation of a computerized triage support advisory in February 2013. This system was comprised of a best practice advisory (BPA) using both a computer prompt and an automated page to alert clinicians to the history of recent BMT. The primary outcome was time to antibiotics, and secondary outcomes included time to vital signs, blood cultures, and transfer. A one-sided Wilcoxon rank-sum test was used to compare before-after intervention times, and the Chi-squared test was used for comparisons of proportions. Statistical tests were assessed for significance at the 5% level.

Results: Sixty-three patients were included in the study, and most had blood cultures drawn and antibiotics started empirically (87% and 86%, respectively). Median time to antibiotics was lower after BPA implementation (79 vs. 114 min, $p<0.01$). Despite earlier antibiotic administration, the rate of blood cultures (85% after vs. 92% before, $p=0.67$) and antibiotics (87% vs. 83%, $p=0.96$) did not change. No differences were observed in time to vital signs, blood culture, or ED disposition did not change.

Conclusion: Computerized triage support was associated with decreased time to antibiotics, without increased health care utilization. Further studies designed to better understand the role of enhanced triage tools and EMR screening protocols are critical to standardizing care and identifying patients at high risk of clinical deterioration.

519

Meeting Retrospective: Defining Quality and Value in Stem Cell Transplant 2014 Forum

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In July 2014, the National Marrow Donor Program/Be The Match's (NMDP) Advisory Group on Financial Barriers to Transplant convened a working forum in Minneapolis, MN attended by over 100 stem cell transplant (SCT) community representatives. Forum participants included transplant center medical and program directors, national payers and reinsurers and leadership from the Foundation for the Accreditation of Cellular Therapy (FACT), the American Society of Blood and Marrow Transplant (ASBMT) and the Center for International Blood and Marrow Transplant (CIBMTR). Speakers at the forum discussed their perspectives on how the SCT field can develop approaches to measure quality and improve value for patients. At the conclusion of the forum many recommendations for the SCT community emerged through several roundtable and full group discussions. (1) The SCT community needs to develop a stronger relationship with referring physicians to ensure timely patient referral to transplant which is associated with better outcomes. Early referral could serve as a quality metric for the hematologic community tied to the patient's overall care experience. Payer engagement in referral timing is an underutilized potential resource. (2) Leverage data available to transplant centers from the CIBMTR's Stem Cell Transplant Outcomes Database (SCTOD) to identify utilization patterns that need further study. (3) SCT community leadership and organizations should develop a venue for ongoing dissemination and discussion of promising care in SCT that take into account FACT findings, SCTOD analysis and ASBMT guidelines for overall quality improvement. (4) Develop draft SCT quality measures and test them among transplant centers. (5) Identify components of quality measurement in SCT that would be appropriate for use in quality or outcome based reimbursement models. (6) Engage other communities in the quality measure development process including the physician societies like the American Society of Hematology and the American Society of Clinical Oncology, the National Quality Forum as well as employers, patients, pharmaceutical manufactures and hospital level administrators and Chief Financial Officers. Forum participants found the meeting to be very engaging and useful for their daily work in the SCT field. A follow-up meeting is scheduled for July 2015 in Minneapolis, MN where community speakers will present updates on quality measure development.

520

Experiences with Design and Implementation of a Related Donor Coordinator Position

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Purpose: At our center, related donors were cared for by our Patient Coordinators. In 2012, we decided to create a new position, a Donor Coordinator position, which was modeled after the NMDP workup specialist position. Our goal was to provide related donors with the same education, care, and emotional support that unrelated donors receive through the National Marrow Donor Program (NMDP). We also wanted to improve the overall donor experience and service that the donors receive. Also, due to FACT standards, we found it necessary to create separate care teams for the donors and recipients, while also being able to offer a donor advocate to all donors.

Scope: We evaluated a related donor's journey from initial testing to follow-up. Key issues found were education prior to testing, donor safety based on past medical history, and administration of filgrastim.

Method: The Donor Coordinator position is in charge of the donor's care and confirms separate teams for the donor and recipient, while also serving as an advocate.

Education prior to initiation of testing was a main goal. A health history questionnaire and educational documents were created for the initial screening, testing, and education of donors. Donors are educated of the whole process by phone prior to testing and are screened by the Donor Coordinator. Screening of donors is performed with a standard health history questionnaire. Any medical conditions that are present are reviewed by the Donor Coordinator who consults the NMDP's Medical Assessment at HR/CT/WU. If the NMDP assessment suggests a deferral, then the Donor Coordinator will send this information to our Transplant Physician to make the final decision on whether to proceed with testing. If there are no concerns regarding a